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10/064,037	06/04/2002	Charles K. Howard	VHSE-P01-001	9765

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EXAMINER
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PREVIL, DANIEL

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/064,037

Applicant(s)

HOWARD, CHARLES K.

Examiner

Daniel Previl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 9-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller (US 4,908,617) in view of Knudsen (US 6,255,942).

Regarding claim 1, Fuller discloses a wireless detector (abstract) comprising: a sensor that detects the presence of a vehicle (vehicle presence sensing circuit) (col. 1, line 45); a transmitter that wirelessly transmits data (transmitter 30 transmits ultrasonic signals) (col. 3, lines 39-40); and power control circuitry for intermittently powering the sensor (the sequence programmed to repeat every second, a signal from a flip flop 24 within the clock circuit 18 over line 26 turns on a transistor 29 in the vehicle sensing circuit 19 to provide power to a transmitter 30 and the rest of the presence sensing circuit 19 via the PWR connection) (col. 3, lines 30-36).

Fuller discloses all the limitations above but fails a controller that control operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times.

However, Knudsen discloses a controller that controls operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times (col. 2, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Knudsen in Fuller. Doing so would control efficiently the operation of the sensor in order to track accurately the location of a motor vehicle to ascertain the exact position the motor vehicle so that authorities would increase security measures to reduce the incidence of theft of the vehicle at a particular location as taught Knudsen (col. 1, lines 5-25).

Regarding claim 2, Fuller discloses a wireless detector (abstract) comprising a transceiver including the transmitter 30 and a receiver 35 that wirelessly receives data (fig. 2).

Regarding claim 3, Fuller discloses a wireless detector (abstract) comprising the receiver is only active during limited time intervals (col. 3, lines 60-68).

Regarding claim 5, Fuller discloses the wireless detector (abstract) comprising the power control circuitry intermittently powers the transmitter (col. 3, lines 30-36).

Regarding claim 9, Fuller discloses a wireless detector (abstract) comprising a buffer that stores sensor data, the transmitter being activated when an amount of sensor data stored in the buffer reaches a predetermined threshold

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(one or more additional message storage devices may be added) (col. 4, lines 59-68).

Regarding claim 10, Fuller discloses a wireless detector (abstract) a signal from the sensor is analyzed to determine vehicle type (car, automobile) (col. 6, lines 15-30)

3. Claims 4, 6-7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller in view of Knudsen and Further in view of Der Ghazarian et al. (US 2002/0128769).

Regarding claim 4, Fuller and Knudsen disclose all the limitations in claim 1 but fail to explicitly disclose the transmitter transmits data using sparse time-division multiplexed protocol.

However, Der Ghazarian discloses transmitter transmits data using a sparse time-division multiplexed protocol (transceiver unit 23 periodically or at time interval transmits parking space unit 22 and vehicle unit 23 to base station) (page 6, ref. 0062).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Der Ghazarian in Fuller and Knudsen. Doing so would transmit at time interval the location of a motor vehicle to ascertain the exact position the motor vehicle so that accurate reports can send to the authorities to enhance the security measure to decrease

vehicle theft in a certain area as taught by Der Ghazarian (page 1, ref. 0001-0004).

Regarding claim 6, Fuller and Knudsen disclose all the limitations in claim 1 but fail to explicitly disclose sensor includes one or more magnetic field sensors.

However, Der Ghazarian discloses the sensor includes one or more magnetic field sensors (infrared or electromagnetic coded signal 30) (page 6, ref. 0061).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Der Ghazarian in Fuller and Knudsen. Doing so would detect accurately the location of a motor vehicle so that authorities can take appropriate measure to prevent car theft as taught by Der Ghazarian (page 1, ref. 0001-0004).

Regarding claim 7, Fuller and Knudsen disclose all the limitations in claim 1 but fail to explicitly disclose a base station communicating with each of the plurality of wireless detectors, each one of the wireless detectors monitoring a parking space for a vehicle.

However, Der Ghazarian a base station 20 communications with each of the plurality of wireless detectors (infrared or magnetic transceiver and motion sensors 40), each one of the wireless detectors monitoring a parking space for a vehicle (fig. 1; page 5, ref. 0058).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Der Ghazarian in

Fuller and Knudsen. Doing so would detect accurately the location of a motor vehicle so that authorities can take appropriate measure to prevent car theft as taught by Der Ghazarian (page 1, ref. 0001-0004).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller in view of Knudsen and further in view of Laubach (US 6,154,150).

Regarding claim 8, Fuller and Knudsen disclose all the limitations set forth in claim 1 but fail to explicitly disclose the detector being activated in response to a vibration detected by the vibrational sensor and the detector being deactivated in response to a period of time without a detected vibration.

However, Laubach discloses the detector being activated in response to a vibration detected by the vibrational sensor (motion detector which actuates the projector upon detection of the movement of a vehicle towards the parking position) (abstract) and the detector being deactivated in response to a period of time without a detected vibration (timer operable to deactivate the projector after a predetermined period of time) (col. 5, lines 12-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Laubach in Fuller and Knudsen. Doing so would accurately indicate the location of the vehicle so that users would assure the safety of their properties as taught by Laubach (col. 1, lines 22-65).

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller in view of Knudsen and further in view of Dahlin et al. (US 6,468,678).

Regarding claim 11, Fuller discloses a sensor that detects the presence of a vehicle (vehicle presence sensing circuit) (col. 1, line 45); a transmitter that wirelessly transmits data (transmitter 30 transmits ultrasonic signals) (col. 3, lines 39-40); and power control circuitry for intermittently powering the sensor (the sequence programmed to repeat every second, a signal from a flip flop 24 within the clock circuit 18 over line 26 turns on a transistor 29 in the vehicle sensing circuit 19 to provide power to a transmitter 30 and the rest of the presence sensing circuit 19 via the PWR connection) (col. 3, lines 30-36).

Fuller discloses all the limitations above but fails to disclose a controller that control operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times; a pavement reflector enclosing the sensor, the controller, and the transmitter, the pavement reflector suitable for withstanding vehicular traffic.

However, Knudsen discloses a controller that controls operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times (col. 2, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Knudsen in Fuller. Doing so would control efficiently the operation of the sensor in order to track



accurately the location of a motor vehicle to ascertain the exact position the motor vehicle so that authorities would increase security measures to reduce the incidence of theft of the vehicle at a particular location as taught by Knudsen (col. 1, lines 5-25).

Furthermore, Dahlin discloses a pavement reflector enclosing the sensor, the controller, and the transmitter, the pavement reflector suitable for withstanding vehicular traffic (fig. 8; col. 8, lines 54-67; col. 9, lines 8-16; col. 23, lines 55-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Dahlin et al. in Fuller and Knudsen. Doing so would utilize the pavement as a guidance to ascertain the exact position of the vehicle to prevent vehicle theft so that users can save money and time as taught by Dahlin (col. 1, lines 19-49).

Regarding claim 12, the above combination discloses all the limitations in claim 11 and Dahlin further discloses methyl methacrylate (methyl) (col. 16, line 52). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Dahlin et al. in Fuller and Knudsen. Doing so would utilize the pavement as a guidance to ascertain the exact position of the vehicle to prevent vehicle theft so that users can save money and time as taught by Dahlin (col. 1, lines 19-49).

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6. Claims 13-14, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Der Ghazarian (US 2002/0128769) in view of Hall (US 6,340,935).

Regarding claim 13, Der Ghazarian discloses a plurality of wireless detectors (infrared and Rf) (fig. 2); a base station 20 coupled in a communication relation with the plurality of wireless vehicle detectors (fig. 2), the base station receiving vehicle detection signals from each of the plurality of wireless vehicle detectors (page 6, ref. 0061), a processor 21 coupled in a communicating relationship with the base station 20 (fig. 2), the processor receiving the vehicle detection signals from the base station and processing the vehicle detection signals to determine a movement of vehicles among the zones. (page 6, ref. 0060-0062).

Der Ghazarian discloses all the limitations above but fails to explicitly disclose each detecting the direction of vehicles, the wireless vehicle detectors arranged into zones and processing the vehicle detection signals to determine a movement of vehicles among the zones.

However, Hall discloses each detecting the direction of vehicles (parking sensors detect entry sensor 30 and exit sensor 40 as the vehicle pulls a parking space) (col. 6, lines 31-34); the wireless vehicle detectors arranged into zones (fig. 3) and processing (computer 10) the vehicle detection signals to determine a movement of vehicles among the zones (fig. 3; col. 7, lines 10-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hall in Der

Ghazarian. Doing so would detect accurately the entrance and leaving of the vehicle into a parking space to provide a vehicle theft deterrent which activate alarms as well as to automatically notify police upon an attempted unauthorized removal of a vehicle, wherein owners can save time and money as taught by Hall (col. 3, lines 35-44).

Regarding claim 14, Der Ghazarian discloses the processor is a component of the base station (fig. 2).

Regarding claim 16, Der Ghazarian discloses the zones comprise zones arranged about an entrance and exit to a location, the base station processing the vehicle detection signals to track vehicles entering and exiting the location (abstract).

Regarding claim 17, Der Ghazarian discloses the plurality of wireless vehicle detectors detects the presence of a vehicle in a parking space (fig. 3; page 6, ref. 0060-0061).

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Der Ghazarian et al in view of Hall and further in view of Racunas, JR. (US 6,501,391).

Regarding claim 15, Der Ghazarian and Hall disclose all the limitations in claim 13 but fail to explicitly disclose the processor resides on a computer accessible to the base station through a network.

However, Racunas discloses a controller resides on a computer accessible to the base station through a network (fig. 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Racunas in Der Ghazarian and Hall. Doing so would transmit a desired parking facility from the central control unit quicker and more convenient to ensure peace of mind to the users as taught by Racunas, Jr. (col. 1, lines 7-63).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller in view of Knudsen.

Regarding claim 18, Fuller discloses a wireless detector (abstract) comprising: a sensor that detects the presence of a vehicle (vehicle presence sensing circuit) (col. 1, line 45); a transmitter that wirelessly transmits data (transmitter 30 transmits ultrasonic signals) (col. 3, lines 39-40); and power control circuitry for intermittently powering the sensor (the sequence programmed to repeat every second, a signal from a flip flop 24 within the clock circuit 18 over line 26 turns on a transistor 29 in the vehicle sensing circuit 19 to provide power to a transmitter 30 and the rest of the presence sensing circuit 19 via the PWR connection) (col. 3, lines 30-36).

Fuller discloses all the limitations above but fails to explicitly disclose a controller that control operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times.

However, Knudsen discloses a controller that controls operation of the sensor and that buffers sensor data and controls operation of the transmitter to transmit the sensor data at predetermined times (col. 2, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Knudsen in Fuller. Doing so would control efficiently the operation of the sensor in order to track accurately the location of a motor vehicle to ascertain the exact position the motor vehicle so that authorities would increase security measures to reduce the incidence of theft of the vehicle at a particular location as taught Knudsen (col. 1, lines 5-25).

9. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller in view of Knudsen.

Regarding claim 19, Fuller discloses a method for conserving energy in a wireless vehicle detector (col. 5, lines 29-50) comprising intermittently powering a sensor to gather data (col. 3, lines 30-36); detecting the presence of a vehicle as sensor data (col. 1, lines 45-56).

Fuller discloses all the limitations above but fails to explicitly disclose the step of buffering the sensor data and wirelessly transmitting the sensor data at predetermined times.

However, Knudsen discloses the step of buffering the sensor data and wirelessly transmitting the sensor data at predetermined times (col. 2, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Knudsen in Fuller. Doing so would control efficiently the operation of the sensor in order to track accurately the location of a motor vehicle to ascertain the exact position the motor vehicle so that authorities would increase security measures to reduce gradually the vehicle theft at a particular location as taught by Knudsen (col. 1, lines 5-25).

Regarding claim 20, Fuller discloses sensing vibrations of an approaching vehicle; and in response to the sensed vibrations, powering the sensor to gather data (upon detecting the presence of a vehicle, the alarm circuit provides an audible warning) (abstract; col. 1, lines 53-57).

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fuller (US 5,153,586) discloses a parking stall-monitor.

Katz (US 6,344,806) discloses a parking status control system and method.

Zeitman (US 5,940,481) discloses a parking management system.

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Anthonyson (US 5,737,710) discloses an automated vehicle parking system for a plurality of remote parking facilities.

Farmont (US 5,504,314) discloses a monitoring and/or directing system for parking areas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703 305-4717. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

  
Daniel Previl  
Examiner  
Art Unit 2636

DP  
October 30, 2003.

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